

REMARKS

At the outset, Applicants respectfully note that a PCT Article 19 amendment was submitted that amended claims 1-19 to claims 1-14 prior to entry into the U.S. national phase. In addition, Applicants filed a preliminary amendment on November 4, 2005 further amending claims 1, 3, 5, 6, 8, 9, 11, 12, and 14. Applicants respectfully request entry of the claims as amended in the PCT Article 19 amendment and as amended by Applicants' preliminary amendment of November 4, 2005.

In this regard, the listing to the claims represents the claims as amended in Applicants' preliminary amendment of November 4, 2005 and further amended in this response. As such, references to claims numbers below refer to the claims as amended in Applicants' preliminary amendment of November 4, 2005 unless specifically noted otherwise.

Reconsideration of this application is respectfully requested. Claims 6, 7, 8, 12, 13 and 14 have been canceled without prejudice or disclaimer. As such, claims 1-5 and 9-11 are in this application and are presented for the Examiner's consideration in view of the following comments.

With regard to the rejection of the claims under 35 U.S.C. §102(e) as being anticipated by U.S. Patent Publication 2005/0068918 published March 31, 2005 to Mantravadi et al. (*Mantravadi*). Applicants' respectfully disagree.

Claim 1 is similar to originally filed claims 1 and 3. Likewise, claim 9 is similar to originally filed claims 10 and 12. Turning first to claim 1, this claim requires:

generating metrics from the hierarchical modulation based signal as a function of a combined signal space of the hierarchical modulation based signal; and

decoding the hierarchical modulation based signal to recover data conveyed in the second signal layer as a function of the generated metrics.

These requirements are simply not described, or suggested, by *Mantravadi*. Applicants note that the Examiner states that elements 842a and 842b of *Mantravadi* describe this portion of Applicants' claims. Respectfully, the Examiner is wrong. In particular, Applicants note that Applicants' claim 1 requires generating metrics as a function of a

combined signal space – yet *Mantravadi* separately processes each layer with separate LLR elements 842a and 842b as is clearly shown in FIGs. 8B and 8C of *Mantravadi*. Indeed, *Mantravadi* states:

[w]ithin RX data processor 370b, a log-likelihood ratio (LLR) computation unit 842a receives the data symbol estimates {.sub.b.sup.i} and computes the LLRs of the code bit(s) that form each data symbol in the data packet being recovered.

Mantravadi, paragraph [0251]; emphasis added.

In other words, *Mantravadi* computes the LLRs based on the symbols actually used for that layer – not a combined signal space as required by Applicants' claim 1.

In view of the above, independent claim 1 is not anticipated, or suggested, by *Mantravadi*. As such, dependent claims 2-5 are also in condition for allowance.

Similar comments apply to Applicants' claim 9. As such, dependent claims 10 and 11 are also in condition for allowance.

Applicants respectfully submit that the remaining rejections of the originally filed claims are overcome by the currently amended claims and for the reasons stated above with respect to Applicants' independent claims 1 and 9.

As it is believed that all of the objections set forth in the Official Action have been fully met, favorable reconsideration and allowance are earnestly solicited. If, however, for any reason the Examiner does not believe that such action can be taken at this time, it is respectfully requested that the Examiner telephone Applicants' attorney in order to overcome any additional objections that the Examiner might have.

If there are any additional charges in connection with this requested amendment, the Examiner is authorized to charge Deposit Account No. 07-0832 therefor.

Respectfully submitted
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